

REMARKS

Claims 1, 3, and 8-10 are amended. Claims 2, 4-7, and 11-22 are cancelled without prejudice or disclaimer. Claims 23 and 24 are added. After entry of this amendment, claims 1, 3, 8-10, 23 and 24 will remain pending in the patent application.

Claims 1 and 4 were rejected under 35 U.S.C. §102(b) based on Tanaka et al. (U.S. Pat. No. 5,486,967) (Tanaka). It is respectfully submitted that the amendment to claim 1 obviates the rejection.

Claim 4 has been cancelled without prejudice or disclaimer, thus rendering moot the rejection of claim 4.

Claim 1, as amended, is patentable over Tanaka because it recites a disk drive including, for example, a preamplifier circuit including a read amplifier constructed and arranged to amplify a read signal output from the read head, and an adjusting circuit constructed and arranged to adjust a low cut-off frequency of the signal output from the read amplifier. Tanaka does not describe an apparatus including at least these features. Therefore, Tanaka does not describe each and every feature recited by claim 1 and, as a result, cannot anticipate this claim.

In contrast to the apparatus recited by claim 1, Tanaka discloses a magnetic disk memory system including a magnetic disk, a recording/reproducing head, a recording amplifier, a reproduction pre-amplifier, a differential circuit, a detection circuit and a pre-coder (See col. 31, lines 3-7 and FIG. 50). However, as conceded by the Examiner on page 3, paragraph 4, of the Office Action, Tanaka fails to teach or suggest an adjusting circuit constructed and arranged to adjust a low cut-off frequency of the signal output from the read amplifier. In addition, Applicants respectfully submit that, contrary to what is stated in the Office Action, Sakai fails to teach or suggest such an adjusting circuit for the reasons set forth below.

Accordingly, reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. §102(b) based on Tanaka are respectfully requested.

Claims 2, 3, 8, 9 and 10 were rejected under 35 U.S.C. §103(a) based on Tanaka in view of Sakai et al. (U.S. Patent No. 4,656,533) (Sakai). It is respectfully submitted that the amendments to claim 1 and 8 obviate the rejection.

Claim 2 has been cancelled without prejudice or disclaimer, thus rendering moot the rejection of claim 2.

It is respectfully submitted that claim 1 is patentable over the asserted combination of Tanaka with Sakai at least because it recites a disk drive including, for example, a preamplifier circuit including a read amplifier constructed and arranged to amplify a read signal output from the read head, and an adjusting circuit constructed and arranged to adjust a low cut-off frequency of the signal output from the read amplifier. In contrast to the invention recited by claim 1, Sakai discloses a floppy disk drive unit including, *inter alia*, a preamplifier and a low pass filter. (See FIG. 3). In Sakai, a signal is detected from the magnetic head assembly and then amplified by the preamplifier. (See col. 4, lines 58-62) Thereafter, the noise components of this signal are removed by way of a low pass filter, which may be controlled by a switching signal so as to set an upper cut off frequency thereof to be suitable for either high density or normal density mode, for instance 300 KHz or 400 KHz. (See col. 4, lines 62-66) It is noted that the low pass filter 19 is a device configured to remove unwanted frequencies/signals higher than the cut-off frequency. That is, the low pass filter of Sakai removes frequencies in the high frequency band. However, Applicants point out that a low pass filter and, more particularly, Sakai's low pass filter, does not set a low cut-off frequency. Therefore, it is respectfully submitted that the low pass filter disclosed in Sakai is not an adjusting circuit to adjust a low cut-off frequency of the signal output from the read amplifier in order to reduce waveform deformation and that the low pass filter of Sakai and the adjusting circuit recited in claim 1 are different circuits configured to achieve different functions.

Claim 3 is patentable over Tanaka and Sakai by virtue of its dependency from claim 1 and for the additional features recited therein.

Therefore, as none of the applied art describes, teaches or suggests a disk drive having the above mentioned features, the combination of Tanaka and Sakai would not result in the invention recited in claim 3.

Claims 8, 9 and 10 are patentable over Tanaka at least because they recite a preamplifier device for a disk drive including, for example, an adjusting circuit constructed and arranged to adjust low cut-off frequency of the signal output from the read amplifier. Tanaka does not describe an apparatus including at least this feature. Therefore, Tanaka does not describe each and every feature recited by claims 8, 9 and 10 and, as a result, cannot

anticipate these claims.

It is respectfully submitted that Sakai fails to overcome this deficiency. As mentioned previously, Sakai only discloses a low pass filter which has an upper cut off frequency that is adjusted according to a switching signal. However, contrary to what is stated in the Office Action, this low pass filter is not an adjusting circuit configured to adjust a low cut-off frequency of the signal output from the read amplifier. This is so, because a low pass filter is a circuit designed to remove unwanted frequencies/signals higher than the upper cut-off frequency. Therefore, as none of the applied art describes, teaches or suggests a preamplifier circuit having the above mentioned features, the combination of Tanaka and Sakai would not result in the invention recited in claims 8-10.

Accordingly, reconsideration and withdrawal of the rejections claims 3, 8-10 under 35 U.S.C. §103(a) based on Tanaka in view of Sakai are respectfully requested.

Claims 5 and 15-21 were rejected under 35 U.S.C. §103(a) based on Tanaka in view of Narita (U.S. Patent No. 6,178,053)

Claims 5 and 15-21 have been cancelled without prejudice or disclaimer, thus rendering moot the rejection of claims 5 and 15-21.

Claim 6 was rejected under 35 U.S.C. §103(a) based on Tanaka in view of Li (U.S. Patent No. 6,501,611)

Claim 6 has been cancelled without prejudice or disclaimer, thus rendering moot the rejection of claim 6.

Claim 7 was rejected under 35 U.S.C. §103(a) based on Tanaka in view of Hashimoto (U.S. Patent No. 4,724,369)

Claim 7 has been cancelled without prejudice or disclaimer, thus rendering moot the rejection of claim 7.

Claims 11 and 12 were rejected under 35 U.S.C. §103(a) based on Tanaka in view of Sakai as applied to claim 8 and further in view of Hashimoto.

Claims 11 and 12 have been cancelled without prejudice or disclaimer, thus rendering moot the rejection of claims 11 and 12.

Claim 13 was rejected under 35 U.S.C. §103(a) based on Tanaka in view of Sakai as applied to claim 8 and further in view of Barber et al. (U.S. Patent No. 6,111,711).

Claim 13 has been cancelled without prejudice or disclaimer, thus rendering moot the rejection of claim 13.

Claim 22 was rejected under 35 U.S.C. §103(a) based on Tanaka in view of Narita as applied to claim 17 and further in view of Contreras (U.S. Patent No. 6,420,910).

Claim 22 has been cancelled without prejudice or disclaimer, thus rendering moot the rejection of claim 22.

Claim 14 was rejected under 35 U.S.C. §103(a) based on Tanaka in view of Sakai as applied to claim 11 and further in view of Nagase et al. (U.S. Patent No. 5,396,375).

Claim 14 has been cancelled without prejudice or disclaimer, thus rendering moot the rejection of claim 14.

Claims 23 and 24 are newly added. Applicants respectfully submit that these new claims are supported by the specification and that no new matter has been added. In addition, it is pointed out that claims 23 and 24 are allowable by virtue of their dependency from claims 1 and 8, respectively. Accordingly, it is respectfully submitted that claims 15-20 are in condition for allowance.

Applicants have addressed all the Examiner's rejections and respectfully submit that the application is in condition for allowance. A notice to that effect is earnestly solicited.

If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Respectfully submitted,  
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